

MasterRoc® MG 44 LS

Low-density foaming grout

Formerly MEYCO Minegrout F44*

Description

MasterRoc MG 44 LS low density foaming grout is based on portland cement and special additives. It yields large volumes of grout from small quantities of powder. Once hardened, MasterRoc MG 44 LS foaming grout produces a solid, durable, low-density fill product suitable for many applications in mines and tunnels.

Applications

Recommended for use where controlled, low strength, lightweight materials can be used. Applications include:

Mining

- Seals and stoppings
- Backfilling
- Temporary and low strength support
- Void and cavity filling

Civil

- Backfilling over pipes
- Thermal and sound insulation
- Structural fills, precast segments
- Pavement bases
- Erosion controls

Building

- Cavity filling
- Roof insulation

Features

- Sets quickly
- Can be used at high water-powder ratios

Benefits

- Offers excellent long term stability
- Places easily
- Compresses significantly under load prior to failure
- Yields high amount of foamed grout

Performance Characteristics

The strength and density of MasterRoc MG 44 LS foaming grout depends on the water-powder ratio used for mixing. The lower the water-powder ratio, the higher the compressive strength and density, and the more durable the final product. The cell structure of the foam can be controlled by the water-powder ratio, length and internal diameter of the pumping line, and the condition of the placement pump. A continuous cell structure is preferred. At a water-powder ratio of approximately 0.9, the following results were obtained (these are only a guide):

Technical Data

Age	Typical compressive strength psi (MPa)
1 day	130 psi (0.9 MPa)
7 days	175 psi (1.2 MPa)
28 days	220 psi (1.5 MPa)

Pumping Property	Recommendations
Pump Type	Continuous placing machine
Pump Setting	Slow
Water Flow Rate	6.9 gal/min. (26 L/min) (approx.)
Pumping Line Type	Poly Pipe (Blue line)
Pumping Line Length	262 ft (80 m) (minimum)
Foamed Grout Density	840-875 lb/yd ³ (500-520 kg/m ³) (approx.)
Pumping Line Internal Diameter	1 in. (25 mm)

Guidelines for Use

Placement: MasterRoc MG 44 LS foaming grout has been designed for use with a continuous placing machine. These machines are required and preferred as they are the easiest to operate and, once set up, only require the dry powder to be fed continuously into the top hopper. The placing machine is required to produce the foaming action.

Note: Different types of placing pumps give different yields and foam characteristics.

Typically the continuous placing machine will use about 3,968 lb (1.8 tonne) of powder per hour.

Mixing: The product requires no pre-mixing and is supplied direct to the hopper of the placing pump. The placing pump, once set up correctly, adds the water, mixes and pumps the product. A minimum grout delivery line length of around 262 ft (80 m) is required when using a 1 in. (25 mm) internal diameter delivery line.

Storage and Handling

Shelf life: MasterRoc MG 44 LS foaming grout has a shelf life of 6 months when stored in a cool, dry environment. The expiration date is printed on each bag of product.

Safety: MasterRoc MG 44 LS foaming grout is not toxic but, as with other materials containing portland cement, it has an alkaline nature and thus can be irritating to skin and eyes. Wear simple dust masks and gloves when handling. Keep out of reach of children. Wash off splashes of grout with clean water. If irritation persists, seek medical advice.

Wear suitable protective clothing, gloves, goggles and dust mask when handling.

Packaging

MasterRoc MG 44 LS foaming grout is supplied in 44 lb (20 kg) bags or 2,204 lb (1 tonne) bulk bags.

Related Documents

Safety Data Sheets: MasterRoc MG 44 LS foaming grout

Additional Information

For additional information on MasterRoc MG 44 LS foaming grout, contact your local sales representative.

The Admixture Systems business of BASF's Construction Chemicals division is the leading provider of solutions that improve placement, pumping, finishing, appearance and performance characteristics of specialty concrete used in the ready-mixed, precast, manufactured concrete products, underground construction and paving markets. For over 100 years we have offered reliable products and innovative technologies, and through the Master Builders Solutions brand, we are connected globally with experts from many fields to provide sustainable solutions for the construction industry.

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* MEYCO Minegrout F44 became MasterRoc MG 44 LS under the Master Builders Solutions brand, effective October 1, 2013.